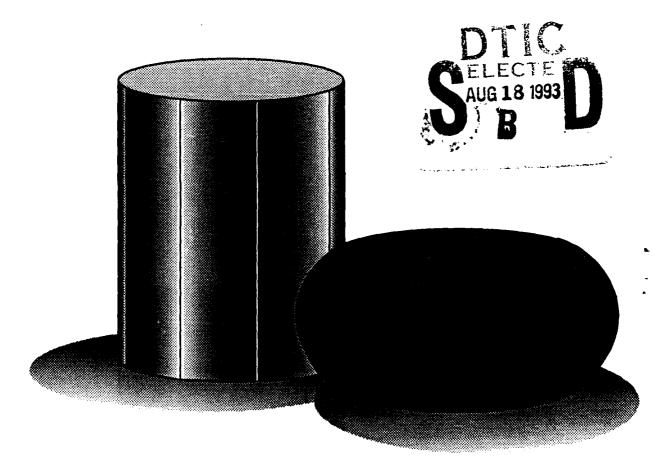
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Atlas of Formability

Cast Aluminum 6009 Flow Stress Curves





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In this investigation, flow behavior of Aluminum 6009 alloy was studied by conducting compression tests over a wide range of temperatures and strain rates. Stress-strain curves were recorded for each test condition. These data are essential in metalworking process design or finite element analysis of high temperature deformation.

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ATLAS OF FORMABILITY CAST ALUMINUM 6009

by

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National Center for Excellence in Metalworking Technology 1450 Scalp Avenue Johnstown, PA 15904

for

Naval Industrial Resource Support Activity Building 75-2, Naval Base Philadelphia, PA 19112-5078

September 31, 1991

The views, opinions, and/or findings contained in this report are those of the authors and should not be construed as an official Department of the Navy position, policy, or decision, unless so designated by other documentation

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Cast Aluminum 6009

Testing Parameters

Strain Rate (1/sec.)	Temperature (deg. C)	Graph Number	Page Number			
0.01	300	60917	2			
0.01	420	420 60916				
0.01	540	540 60921				
0.01	Combination	60925	5			
0.1	360	60914	6			
0.1	480	60915	7			
0.1	Combination	60926	8			
1.0	300	60913	9			
1.0	420	60909	10			
1.0	540	60912	11			
1.0	Combination	mbination 60927				
5.0	360	60901	13			
5.0	480	60902	14			
5.0	Combination	60928	15			
12.0	300	60904	16			
12.0	420	60903	17			
12.0	540	60906	18			
12.0	Combination	60929	19			

